

REMARKS/ARGUMENTS

Reconsideration of the rejections contained herein is respectfully requested in view of the following remarks. Claims 1-50 are currently pending in the application.

Claim Rejections – 35 USC § 103

Claims 1, 2, 5, 9, 11, 14, 16, 17, 20, 24, 26, 31, 32, 35, 39, 40, 43, 49 and 50 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Liu (U.S. Patent Number 7,072,315) in view of Shiobara (U.S. Patent Number 5,535,214). Claims 10 and 25 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Liu in view of Shiobara, and further in view of Berruto (EP 0627827). Claims 3, 4, 12, 13, 18, 19, 27-29, 33, 34, 41 and 42 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Liu in view of Shiobara, and further in view of Sherman (U.S. Publication No. 2003/0161340). Claims 6, 15, 21, 36 and 44 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Liu in view of Shiobara, and further in view of Vadgama (U.S. Publication No. 2003/0083069). Claim 30 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Liu in view of Shiobara, and further in view of Sherman and Vadgama. Claims 7, 22, 37 and 45 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Liu in view of Shiobara and Vadgama, and further in view of Holden (U.S. Patent Number 6,134,218). Claims 8, 23, 38 and 46 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Liu in view of Shiobara, Vadgama, and Holden, and further in view of Sherman. Claims 47 and 48 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Liu in view of Shiobara, and further in view of Bantz (U.S. Patent No. 5,394,433). Applicants respectfully traverse these art grounds of rejection.

Regarding independent claims 1 and 9, Liu merely teaches a method and apparatus for controlling OFDMA cellular networks which includes receiving channel characteristics and noise-plus-interference information measured at spatially distributed subscribers, and assigning traffic channels for an orthogonal frequency-division multiple-access (OFDMA) network (col. 2, lines 35-41).

Specifically, in one section of Liu cited by the Examiner (col. 6, lines 33-57), the reference merely teaches that

the base-station first estimates the uplink and downlink SINRs across all OFDMA traffic channels for all active (subscriber already linked to the base-station but not currently transmitting) and accessing subscribers, while factoring in the QoS requirements (e.g., data rate (e.g., buffer size), time-out, bit error rate, waiting time (how long the subscriber has been waiting)) to determine the optimum traffic channel allocation.

In another section cited by the Examiner, Liu merely teaches that “[e]ach base-station may also buffer the QoS requirements (e.g., data rate, time-out, bit error rate, waiting time).” (See col. 6, lines 53-55.)

A number of other sections of Liu which were cited by the Examiner (e.g., col. 8, lines 44-59, col. 9, lines 5-16 and col. 9, lines 38-65) merely teach aspects associated with subscriber data rates in relation to QoS requirements and subscriber requested data rates, and how an OFDM demodulator estimates channel characteristics based on feedback information which may include subscriber requested data rates.

However, Applicants respectfully submit that Liu fails to teach or suggest, at least:

“determining a data rate for transmission of the packets of data based on the arrangement of said packets of data in said queue allowing for meeting the transmission deadline for each of said packets of data,” as recited in claim 1; and

“determining a number of data rates for transmission of the packets of data based on the number of possible queue arrangements,” as recited in claim 9. (Emphasis added.)

In fact, Liu fails to teach determining data rates based upon any type of signal parameter. Instead, Liu utilizes data rates as an input value, which is set by QoS subscriber requirements, to determine other quantities (e.g., channel characteristics).

Regarding the secondary reference, Shiobara fails to cure the deficiencies of Liu with respect to claims 1 and 9. Shiobara merely teaches a communication system where data is preferentially subjected to transmission/reception processing based on their respective margin times, and data which are determined to have high urgencies in the overall system are preferentially transmitted. (See col. 7, line 65 – col. 8, line 2.) Applicants submit that Shiobara is silent with respect to the features of claims 1 and 9 quoted above.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 1 and 9.

Independent claims 16, 31 and 39 recite related subject matter to claim 1 in this respect, and are allowable at least for similar reasons. Also, independent claim 24 recites related subject matter to claim 9 in the above respect, and is allowable at least for similar reasons to those given above. Claims depending from these independent claims are allowable at least by virtue of their dependency therefrom.

The Berruto, Sherman, Vadgama, Holden and Bantz references, as applied, fail to cure the above-noted deficiencies of the independent claims. Accordingly, any claims rejected based on any combination of these references that depend from allowable independent claims 1, 9, 16, 24, 36 and 39, are allowable at least by virtue of their dependency. Moreover, these claims recite additional subject matter, which is not suggested by the documents taken either alone or in combination.

CONCLUSION

In light of the amendments contained herein, Applicant submits that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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